

Title (en)  
STRUCTURE

Title (de)  
STRUKTUR

Title (fr)  
STRUCTURE

Publication  
**EP 2508411 A4 20130508 (EN)**

Application  
**EP 10834543 A 20101130**

Priority

- JP 2009274920 A 20091202
- JP 2010187241 A 20100824
- JP 2010071324 W 20101130

Abstract (en)

[origin: EP2508411A1] A structure including a structural member (1) configured like a frame with four sides is disclosed. A closed cross-section structural member (4) serving as a reinforcing material is provided in a crossing corner (2) of the structural member (1). The closed cross-section structural member (4) includes two horizontal portions (5) separated from each other in a thickness direction of the structural member (1) and extending in an in-plane direction of the structural member (1) and two vertical portions (6) one of which connects first ends of the two horizontal portions (5) together and the other of which connects second ends of the two horizontal portions (5) together. The closed cross-section structural member (4) includes a first opening (7) formed therein facing an inner-peripheral flat surface (1a) of the structural member (1) and a second opening (8) formed therein facing inside of the structural member (1). The height  $h_0$  of the closed cross-section structural member (4) is substantially the same as the thickness  $H$  of the structural member (1). The opening edge of the first opening (7) is entirely joined to the inner-peripheral flat surface (1a) of the structural member (1). A flattening that is the ratio of the maximum width  $H$  of the second opening (8) to a height  $h_0$  of the closed cross-section structural member (4) is greater than 1.0 and not greater than 3.0.

IPC 8 full level

**B62D 21/00** (2006.01); **B62D 21/11** (2006.01); **B62D 27/02** (2006.01); **E04C 2/38** (2006.01)

CPC (source: EP KR US)

**B62D 21/00** (2013.01 - KR); **B62D 21/11** (2013.01 - EP US); **B62D 27/023** (2013.01 - EP US); **E04C 2/38** (2013.01 - KR);  
**F16M 1/08** (2013.01 - EP US); **Y10T 428/12361** (2015.01 - EP US); **Y10T 428/17** (2015.01 - EP US)

Citation (search report)

- [A] US 2005028478 A1 20050210 - KONDO TETSUMI [JP], et al
- [AD] JP 2005054565 A 20050303 - NIPPON STEEL CORP
- [AD] JP 2006002464 A 20060105 - NIPPON STEEL CORP
- [AD] JP 2001132102 A 20010515 - NIPPON STEEL CORP, et al
- [A] US 6379074 B1 20020430 - CHIN HSUEH-HUNG [TW], et al
- [A] JP 2002120754 A 20020423 - SUZUKI MOTOR CO
- See also references of WO 2011068093A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 2508411 A1 20121010; EP 2508411 A4 20130508; EP 2508411 B1 20150401;** BR 112012013384 A2 20160301; CN 102639388 A 20120815;  
CN 102639388 B 20150729; ES 2534914 T3 20150430; JP 4902035 B2 20120321; JP WO2011068093 A1 20130418;  
KR 101372614 B1 20140310; KR 20120085843 A 20120801; MX 2012006328 A 20120703; MX 343635 B 20161115; MY 159571 A 20170113;  
TW 201131047 A 20110916; TW I447287 B 20140801; US 2012231200 A1 20120913; US 2015152995 A1 20150604; US 8955284 B2 20150217;  
US 9206940 B2 20151208; WO 2011068093 A1 20110609

DOCDB simple family (application)

**EP 10834543 A 20101130;** BR 112012013384 A 20101130; CN 201080054323 A 20101130; ES 10834543 T 20101130;  
JP 2010071324 W 20101130; JP 2011544251 A 20101130; KR 20127013251 A 20101130; MX 2012006328 A 20101130;  
MX 2015001439 A 20101130; MY PI2012700304 A 20101130; TW 99141907 A 20101202; US 201013510673 A 20101130;  
US 201414561674 A 20141205